

PROPOSED ADDITION TO THE "OFFICIAL LIST OF SPECIFIC NAMES IN ZOOLOGY" OF THE SPECIFIC NAME "VIVIPARA" LINNAEUS, 1758, AS PUBLISHED IN THE COMBINATION "HELIX VIVIPARA", AS INTERPRETED BY MÜLLER (O.F.) IN 1774 (CLASS GASTROPODA)

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(Commission Reference : Z.N.(S.) 857)

The object of the present application is to ask the International Commission on Zoological Nomenclature to put an end to confusion regarding the interpretation of the nominal species *Helix vivipara* Linnaeus, 1758, by giving a Ruling that this species is to be interpreted by reference to the action taken by Müller (O.F.) when establishing the nominal species *Nerita fasciata* in 1774. The facts of this case are set out below.

2. In notes previously published elsewhere (Boettger, 1931, 1932, 1939) I have discussed the nomenclature of the species of the genus *Viviparus* Montfort, 1810, occurring in Central Europe. The results of these studies were widely, although not quite generally, accepted. Recently in the course of a personal discussion the desire was expressed to select as the lectotype of the species *Helix vivipara* Linnaeus one of the two specimens of the common river snail in the Linnean collection. If this proposal were to be accepted it would stabilize a conception which is contrary to the historical development of the case.

3. It is a well-known and undeniable fact that *Helix vivipara* Linnaeus is a composite species. According to the Tenth Edition of the *Systema Naturae* (: 772-773, No. 603) this name is based on the descriptions and figures of several previous authors including Linnaeus himself. It possibly also has been based on the shells in the Linnean collection, although this cannot be proved.

4. The first author to separate the two components of Linnaeus' composite species was O. F. Müller (1774). He restricted the name *Helix vivipara* Linnaeus to his *Nerita vivipara*, the species with more convex whorls and deeper suture. He definitely quoted Linnaeus under this species. From this species O. F. Müller, by a differential diagnosis, separated the species with less inflated whorls and more shallow suture as *Nerita fasciata*. I have

previously maintained that, for this reason, O. F. Müller must be considered as the first reviser. Recently, however, it has been contended that in the separation of species the opinion of the revising author is irrelevant from the nomenclatorial point of view. In any case, here we have to deal with a clear restriction by O. F. Müller of the name *Helix vivipara* Linnaeus. The figure given by Schröter (1779) leaves no doubt that O. F. Müller actually distinguished the two species. Müller's species was based (i) on a specimen from Hamburg ("Saxonia", Schröter), which is the original of figure 1, and (ii) on a second specimen from Italy ("Italia", Bassi). The type locality is here restricted to Hamburg, Germany. Schröter's description proves that the specimen figured by him (fig. 1) is the same as the one upon which O. F. Müller based his *fasciata*. Schröter himself thought that his specimen, i.e. the one described by Müller, was only a "rolled and polished specimen" of *vivipara*. But the figure (fig. 1) shows clearly that he had before him a specimen of the "penthica" modification of the river snail which is common in the lower Elbe river. This is demonstrated by the obtuse apex in contrast to the figure of *vivipara* which shows the characteristic sharp apex.

5. This restriction of *vivipara* to the broader species was accepted by Gmelin (1788). He emphasized that *Helix vivipara* was the specimen with strongly convex whorls. Gmelin erroneously listed both of Schröter's figures under *Helix vivipara* but he cited Müller correctly. Gmelin's view was accepted later on by all subsequent authors (Draparnaud, 1801; C. Pfeiffer, 1821; Lamarek, 1822; Rossmaessler, 1835; Gray, 1840; Küster, 1850).

6. In 1850 Forbes and Hanley pointed out that only specimens of the more slender species were preserved in the Linnean collection which they therefore identified with Linnaeus' name. Only a few subsequent authors have adopted this view. If, as is now proposed, the opinion of Forbes and Hanley is to be stabilized by making one of the two Linnean specimens the lectotype, this would unnecessarily upset the name which, since 1779, has been in general use, and it would produce great confusion.

7. As Linnaeus, quite generally, based his names on published figures as well as on specimens in his own collection, the figures are of equal status as a basis for interpreting Linnean names. There is no justification for preferring an actual specimen and no provisions in this direction are made by the Code.

8. For the reasons set forth in the preceding paragraphs and, having regard especially to the fact that the International Congress of Zoology has prescribed that in the case of a nominal species established partly on previously published descriptions and figures and partly upon actual specimens, the specimens on which the cited descriptions were based and those figured in the cited illustrations are to rank as syntypes of the nominal species in question equally with the

specimens on which that species was in part established, I now ask the International Commission on Zoological Nomenclature :—

(1) to give a Ruling :—

(a) that the nominal species *Helix vivipara* Linnaeus, 1758, is to be interpreted in the manner adopted by Müller (O.F.) (1774) when he defined the foregoing nominal species cited by him as *Nerita vivipara* by removing from the composite species established by Linnaeus the second component to which he then gave the name *Nerita fasciata* ;

(b) that the nominal species *Nerita fasciata* Müller (O.F.), (1774) is to be interpreted by the figure therefor (fig. 1) published by Schröter in 1779 and that the Restricted Locality " Hamburg " (= " Saxonia ", Schröter) designated for this species by Boettger in the present application be the Restricted Locality for this species ;

(2) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

(a) *vivipara* Linnaeus, 1758, as published in the combination *Helix vivipara*, as interpreted by the Ruling given in (1)(a) above ;

(b) *fasciata* Müller (O.F.), 1774, as published in the combination *Nerita fasciata* and as interpreted by the Ruling given in (1)(b) above and with the Restricted Locality there specified.

References

Boettger (C.R.), 1931, *Arch. Molluskenk.* 63 : 255–265

—, 1932, *ibid.* 64 : 109–110

—, 1939, *Zool. Anz.* 127 : 174–176

Gmelin (J.F.), [1791], in Linnaeus, *Syst. Nat.* (ed. 13) 1(6) : 3646, No. 105

Müller (O.F.), 1774, *Vermium terrestrium et fluviatilium . . . succincta Historia* 2 : 182–184

Schröter (J.S.), 1779, *Die Geschichte der Flussconchylien mit vorzüglicher Rücksicht auf diejenigen welche in den thüringischen Wassern leben*